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ABSTRACT

Sex differences in aspirational and psychological variables related to achievement motivation were investigated among high school seniors. The sample consisted of 218 boys and 241 girls. Sex differences in fear of success imagery was not found. Results indicated when girls were compared to boys that girls: (1) have earlier plans for marriage; (2) showed lower level of work-study aspirations; (3) perceived their parents and boyfriend to hold lower work-study aspirations for them; (4) showed more non-traditional attitudes toward women; and (5) had lower resultant achievement motivation, stronger need for affiliation, and keener sensitivity to rejection. (Author)

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Achievement Motivation Correlates: Sex Differences In High School Seniors

Statement of the Problem

Several studies have pointed out sex differences in one or a few of the following achievement-motivation-related variables: need for affiliation, expectations of parents and significant males in a woman's life, traditional vs. non-traditional views toward women, marriage plans, resultant achievement motivation, fear of rejection, educational and vocational aspirations (Alper, 1974; Barnett, 1975; French & Lesser, 1974; Hoffman, 1972; Horner, 1974; Lewis, 1975; Lockheed, 1974; Rossi, 1972; Tangri, 1972; and Veroff, 1977). The present study focussed on all these variables simultaneously and investigated sex differences in these achievement-motivation-related aspirational and psychological variables among high school seniors.

Sample Data and Procedure

A group of 218 male and 241 female seniors from a predominantly white and lower- to middle-class midwestern high school served as the sample. The following achievement-motivation-related data were collected:

1. Background variables consisted of intellectual (IQ and GPA) and socio-economic (educational and occupational levels of both parents) data which did not show significant differences between boys and girls.

2. Aspirational variables were derived from a personal data sheet completed by each participant in the study. The data-sheet requested information on the student's marital plans; work-study plans; and the student's perceptions of the work-study aspirations held by his parents and boyfriend/girlfriend.

The marital plan of each student was determined by his/her selection

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from a series of six progressive statements ranging from no marriage plans to definite marriage plans within six months. These statements were scored from one to six.

The ratings on work-study plans were derived by converging two ratings, one on educational plans and the other on vocational plans. Each student's educational plans were determined by the amount of additional educational preparation he/she expected to attain. Hence, plans of not studying beyond high school, pursuing two-year and four-year programs beyond high school were rated as one, two and three respectively. The same ratings were also applied to the student's perceptions of how his/her parents and his/her girlfriend/boyfriend envisioned his/her educational plans.

The student's vocational plan was based on his/her desire for independence through self-employment. Hence, no work, part-time work, and full-time work were rated successively from one to three. The same ratings were also accorded to the student's perceptions of how his parents and his/her girlfriend/boyfriend envisioned his/her occupational plans.

3. Psychological variables were obtained from a battery of instruments administered to the students: (1) Resultant achievement motivation was measured by Mehrabian's (1969) "Measures of Achieving Tendency"; (2) need for affiliation by "Measures of Affiliative Tendency" and (3) fear of social rejection by "The Sensitivity to Rejection Scale", both by Mehrabian and Ksionzky (1970); (4) non-traditional attitudes toward women by "Attitude Toward Women Scale" by Spence, Helmreich, and Stapp (1973); and (5) motive to avoid success was measured by fear of success imagery shown in student's stories written in response to one of the following verbal cues: "At the end of the first term finals, Bill (Susan) finds himself (herself) at the top of his (her) engineering class." A random half of the males and

females were given the "Bill" cue and the other halves the "Susan" cue. Fear of success imagery was measured with a continuous scale incorporating Horner's measure (1973) plus some other categories developed by the author (1976).

Analyses of variance were computed using the student's sex and cue-sex as factors. The dependent variables were each of the aspirational and psychological variables listed above. The dependent variables for which significant sex differences were found were subsequently used as independent variables in a discriminant analysis to determine how well the variables would separate the male and female students into two groups.

Results

This study did not find a significant sex difference in fear of success imagery. However, in all other aspirational and psychological variables the results of the study indicated (Tables 1 & 2) that female students com-

/Insert Tables 1 & 2 about here/

pared to male students desired and planned to get married sooner ($p < .0005$), had lower level of work-study aspirations ($p < .00005$), perceived parents and boyfriends ($p < .00005$ and .0001 respectively) as holding lower expectations regarding their educational and vocational plans, had lower resultant achievement motivation scores ($p < .005$), had higher scores on affiliation ($p < .0001$) and keener sensitivity to rejection ($p < .0005$), and had more non-traditional attitudes toward women ($p < .00001$). Since these characteristics provided a tentative profile of boys and girls, they were used as independent variables in a discriminant analysis. The Mahalanobis D^2 (Winer, 1971, p. 845) was highly significant ($p < .000001$), indicating that the conglomeration of independent variables used in the analysis were valid for discriminating students into two groups according to their sex.

Conclusion

The results derived from this study corroborated earlier findings regarding most of the achievement-related factors. Though these students belong to the later 70's, girls compared to boys still showed lower resultant achievement motivation, greater need for affiliation and keener sensitivity to rejection. But in two respects they differed: these girls compared to boys (a) had more non-traditional attitudes toward women, and (b) did not differ significantly in their fear of success imagery, which are indications that they are at least exposed to female equality. But their aspirations regarding work-study plans fell far short of boys. Not only their own aspirations but their perceptions of their parent's and boyfriend's expectations regarding their work-study plans were also far lower than their counterparts. These factors coupled with higher need for affiliation and keener sensitivity to rejection felt by girls (compared to boys) still discouraged their aspirations for higher work-study levels and encouraged them to desire and plan for their marriage after finishing high school earlier. Even in the later 70's the profiles of male and female high school seniors seem different on the basis of these selected aspirational and psychological variables.

TABLE 1

Means and Standard Deviations of
Aspirational and Psychological Variables
by Student-sex and Cue-sex

Variable	Group	n	Mean	SD
	Aspirational Variables			
Marriage plans	Males: Male Cue	99	5.54	1.26
	Males: Female Cue	103	5.77	0.77
	Females: Male Cue	113	4.96	1.77
	Females: Female Cue	120	5.32	1.41
S's work-study plans	Males: Male Cue	92	4.92	0.73
	Males: Female Cue	99	5.01	0.61
	Females: Male Cue	101	4.61	0.72
	Females: Female Cue	109	4.64	0.71
Work-study plans: expectations of parents	Males: Male Cue	95	5.05	0.63
	Males: Female Cue	101	5.01	0.56
	Females: Male Cue	104	4.66	0.80
	Females: Female Cue	115	4.77	0.69
Work-study plans: expectations of boyfriend/ girlfriend	Males: Male Cue	62	4.63	0.81
	Males: Female Cue	61	4.79	0.88
	Females: Male Cue	65	4.12	0.84
	Females: Female Cue	66	4.27	0.93
	Psychological Variables			
Resultant achievement motivation	Males: Male Cue	100	136.48	19.82
	Males: Female Cue	105	133.63	19.96
	Females: Male Cue	113	129.65	19.05
	Females: Female Cue	123	127.76	20.03
Need for affiliation	Males: Male Cue	101	164.29	21.31
	Males: Female Cue	104	166.38	22.68
	Females: Male Cue	115	177.74	19.42
	Females: Female Cue	123	173.21	20.29
Non-traditional attitudes toward women	Males: Male Cue	100	127.79	18.89
	Males: Female Cue	106	128.69	16.25
	Females: Male Cue	115	138.01	15.99
	Females: Female Cue	123	138.45	16.44
Sensitivity to rejection	Males: Male Cue	101	122.70	21.28
	Males: Female Cue	106	126.91	19.71
	Females: Male Cue	115	132.79	20.39
	Females: Female Cue	123	134.77	20.18
Motive to avoid success	Males: Male Cue	101	1.17	1.93
	Males: Female Cue	106	2.56	2.58
	Females: Male Cue	115	0.79	1.82
	Females: Female Cue	123	2.48	2.65

TABLE 2

Summary Table of ANOVA for Scores on
Aspirational and Psychological Variables
by Student-sex (Ssx) and Cue-sex (Csx)

Dependent Variable	Source of Variation	df	MS	F	
	Aspirational Variables				
Marriage plans	Student-sex	1	28.18	15.13	*****
	Cue-sex	1	9.21	4.94	
	Ssx vs. Csx	1	0.39	0.21	
	Within	432	1.86		
S's work-study plans	Student-sex	1	11.48	23.68	*******
	Cue-sex	1	0.33	0.68	
	Ssx vs. Vsx	1	0.08	0.17	
	Within	397	0.49		
Work-study plans: expectations of parents	Student-sex	1	10.37	22.97	*******
	Cue-sex	1	0.09	0.20	
	Ssx vs. Csx	1	0.54	1.19	
	Within	411	0.45		
Work-study plans: expectations of boyfriend/ girlfriend	Student-sex	1	16.50	21.85	******
	Cue-sex	1	1.50	1.99	
	Ssx vs. Csx	1	0.01	0.00	
	Within	250	0.76		
	Psychological Variables				
Resultantant achievement motivation	Student-sex	1	4417.32	11.36	***
	Cue-sex	1	613.73	1.58	
	Ssx vs. Csx	1	25.76	0.07	
	Within	437	388.75		
Need for affiliation	Student-sex	1	11325.22	25.95	******
	Cue-sex	1	163.80	0.38	
	Ssx vs. Csx	1	1204.29	2.76	
	Within	439	436.39		
Non-traditional attitudes toward women	Student-sex	1	11006.36	38.69	********
	Cue-sex	1	49.31	0.17	
	Ssx vs. Csx	1	5.84	0.02	
	Within	440	284.50		
Sensitivity to rejection	Student-sex	1	8915.29	21.46	*****
	Cue-sex	1	1057.47	2.55	
	Ssx vs. Csx	1	136.49	0.33	
	Within	441	415.36		
Motive to avoid success	Student-sex	1	5.70	1.08	
	Cue-sex	1	261.77	49.59	********
	Ssx vs. Csx	1	2.49	0.47	
	Within	441	5.28		

***p <.005; *****p < .0005; ******p < .0001; *******p < .00005;
********p < .00001

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